

Amendments to the Claims:

5 This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

10 Claims 1-10 (canceled).

Claim 11 (currently amended): A method for removing anti-acetylcholine receptor (anti-AChR) antibodies from serum of a myasthenia gravis (MG) patient, comprising the steps of:

15 i) contacting said serum of the MG patient with a combination of recombinant N-terminal extracellular domains of alpha, beta, gamma, delta and epsilon subunits of a primate muscle nicotinic acetylcholine receptor (AChR); (AChR) wherein the recombinant N-terminal extracellular domains are at least 70 amino acids in length; and

ii) immunoadsorbing anti-AChR antibodies from said serum.

20 Claim 12-13 (canceled).

Claim 14 (previously presented): The method of claim 11 wherein the primate is human.

Claim 15 (canceled).

Claim 16 (currently amended): The method of claim [15] 11 wherein the recombinant N-terminal extracellular domain comprises at least one of a) ~~mutant forms include~~
5 ~~substitutions of free cysteine by other amino acids and substitutions of the hydrophobic~~
~~loops of the subunits corresponding to alpha 128-142~~ with the corresponding sequence
of the Ach binding protein ~~by more hydrophilic sequences, or the alpha domain~~
~~containing the P3A exon, or comprise~~ and b) a FLAG tag at the N-terminal in the
10 ~~presence or absence of the 6His tag.~~

Claim 17 (canceled).

Claim 18 (currently amended): The method of claim 11 wherein the recombinant N-
15 ~~terminal extracellular domain of the alpha subunit comprises~~ all of amino acids 1-210.
1-210 of the alpha subunit.

Claim 19 (currently amended): The method of claim 11 wherein the recombinant N-
terminal extracellular domain of the beta subunit comprises all of amino acids 1-222. 1-
20 222 of the beta subunit.

Claim 20 (currently amended): The method of claim 11 wherein the recombinant N-
terminal extracellular domain of the gamma subunit comprises amino acids 1-248. 1-

218 of the gamma subunit.

Claim 21 (currently amended): The method of claim 11 wherein the recombinant N-terminal extracellular domain of the delta subunit comprises all of amino acids ~~1-224~~. 1-

5 224 of the delta subunit.

Claim 22 (currently amended): The method of claim 11 wherein the recombinant N-terminal extracellular domain of the epsilon subunit comprises all of amino acids ~~1-219~~.

1-219 of the epsilon subunit.

10 Claim 23 (previously presented): The method of claim 11 wherein the recombinant N-terminal extracellular domains are expressed in a eukaryotic expression system.

Claim 24 (previously presented): The method of claim 23 wherein the eukaryotic
15 expression system is selected from the group consisting of *Pichia pastoris*, Semliki Forest Virus, and combinations thereof.

Claim 25 (canceled).

20 Claim 26 (previously presented): The method of claim 11 wherein the combination is achieved simultaneously or sequentially.

Claim 27 (canceled).

Claim 28 (withdrawn): A carrier comprising a combination of recombinant domains of the primate muscle nicotinic AChR subunits alpha, beta, gamma, delta and epsilon.

5 Claim 29 (withdrawn): The carrier of claim 28 comprising a recombinant domain of the alpha subunit of the primate muscle nicotinic AChR in combination with a recombinant domain derived from any one of the beta, gamma, delta and epsilon subunits of the primate muscle nicotinic AChR.

10 Claim 30 (withdrawn): The carrier of claim 28 wherein the recombinant domains are covalently immobilized to the carrier matrix.

Claim 31 (withdrawn): The carrier of claims 28 wherein the carrier has a mixture selected from agaroses, such as CNBr-Sepharose, celluloses, porous glass, silica,
15 resins, synthetic matrixes including acrylamide derivatives, methacrylamide derivatives or polystyrene derivatives.

Claim 32 (withdrawn): The carrier of claim 28 wherein the carrier is in the form of beads, fibrous form, sheets or hollow fibers, with spacer arms or without.

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Claim 33 (withdrawn): A method for making a carrier for use in a method of immunoadsorption of anti-AChR antibodies comprising:

i) expressing a combination of recombinant domains of AChR subunits in a eukaryotic expression system;

ii) incubating said purified domains with an insoluble carrier matrix.

5 Claim 34 (withdrawn): The method of claim 33 wherein the combination of domains is coexpressed.

Claim 35 (withdrawn): The method of claim 33 wherein the eukaryotic expression system is *Pichia pastoris* or SFV.

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Claim 36 (currently amended): A method of *ex vivo* removal of anti-AChR antibodies from the blood of MG patients comprising incubating said blood with a carrier comprising a combination of recombinant N-terminal extracellular domains of the primate muscle nicotinic AChR subunits alpha, beta, gamma, delta, and ~~epsilon~~ epsilon wherein the recombinant N-terminal extracellular domains are at least 70 amino acids in length.

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Claim 37 (withdrawn): A recombinant domain of the beta subunit or gamma unit, or delta unit or epsilon unit of the primate muscle nicotinic AChR.

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Claim 38 (withdrawn): The recombinant domain of claim 37 wherein said domain of the beta unit is the N-terminal extracellular domain comprising amino acids 1-222.

Claim 39 (withdrawn): The recombinant domain of claim 37 wherein said domain of the gamma unit is the N-terminal extracellular domain comprising amino acids 1-218.

Claim 40 (withdrawn): The recombinant domain of claim 37 wherein said domain of the
5 delta unit is the N-terminal extracellular domain comprising amino acids 1-224.

Claim 41 (withdrawn): The recombinant domain of claim 37 wherein said domain of the epsilon unit is the N-terminal extracellular domain comprising amino acids 1-219.

10 Claim 42 (previously presented): The method of claim 25 wherein the recombinant N-terminal extracellular domains comprise about 200 amino acids.